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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,444	07/24/2003	Felix Guindulain Vidondo	2383-1-017	1835

23565 7590 03/20/2006

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/626,444

Applicant(s)

GUINDULAIN VIDONDO, FELIX

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.  
7) ☒ Claim(s) 3,6 and 7 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 3 objected to because of the following informalities: in the third line down, the phrase "surface with a rounded vertex has a fixed body" appears to be grammatically incorrect. Appropriate correction is required.
2. Claim 6 is objected to because of the following informalities: in the 4<sup>th</sup> and 5<sup>th</sup> line down, the phrase "at least one optical sensor for measuring through the bank notes" appears to be grammatically incorrect. Appropriate correction is required.
3. Claim 7 objected to because of the following informalities: in the third line down, the term "round" appears to be "around". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergeron et al (US 5,988,345) in view of Watabe (US 5,195,739).

Regarding Claims 1-3, Bergeron discloses a bill validator having two halves in an L-shape and a note storage box (200) (see figure 1), the validator having optical entrance sensors (46), validation sensors (60 and 64). Bergeron further discloses means for detecting entrance of banknotes in the form of phototransistors (56),

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transportation means (18, 20 and 26), as described in col. 4, lines 36-45, control means (300) that controls various elements of the system, including motors (155 and 178).

Regarding Claim 6, Bergeron describes detector pairs (58, 60) that detect light reflected from the bill as well as light transmitted through the bill. See col. 6, lines 1-9. Note also that this information is processed as is well-known in the art, per col. 6, lines 6-9. Such analysis regularly entails comparing actual sensed data from the validation sensors with template data stored in memory.

Regarding Claims 9 and 10, note that Bergeron discloses plural levers (154 and 156) with moving wall (152) in figure 16 and double pairs of wheels (18, 20, 24, 30, 32, 38, 39) in figure 1. Note further figure 1, which illustrates another moving wall (206) with spring (209).

Regarding Claim 11, Bergeron discloses a microprocessor (300) for controlling the system.

Regarding the new amended claim language added from cancelled Claim 5 to Claim 1 as well as Claim 4, note that it is considered obvious that the gears and shafts connected to the bill validator motors have an optical encoder that senses the rotations of the motor or shaft and sends this information to the controller (300). See Bergeron col. 13, lines 8-14, which mentions that an optical sensor can detect the rotation of the wheel (170). It would have been obvious to use such an optical sensor or a functionally equivalent encoder device in other areas of the system where rotation of a wheel must be detected to determine speed and rotation, such as the drive wheels that

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transport the banknotes through the system. Note that recesses in the wheel detected by an optical sensor are functionally equivalent to an encoder.

Bergeron does not expressly disclose, but Watabe discloses a non-return security means (29) (see figure 2) used in a bill validator, as called for in Claims 1 and 7, for example. Watabe further discloses that the security means has a u-shaped body (29, 31, 36) that rotates about a core axle (32), having "wings" in the form of hook elements (34). See figures 2-6. Regarding Claim 8, Watanabe discloses a sensor (44) that detects payment received in the bill storage area, and a sensor (53) that detects a fraudulent withdrawal as described in col. 4, lines 34-45 and col. 5, lines 1-58.

Both Bergeron and Watabe are considered analogous art because they concern bill handling.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the bill non-return means, including a sensor detecting payment received in a bill storage area and a sensor that detects fraudulent withdrawal in the bill validator of Bergeron, as taught by Watabe.

The suggestion/motivation would have been to prevent bills from being pulled out of the validator. See Watabe, col. 1, lines 42-48.

### ***Response to Arguments***

6. Applicant's arguments filed 1/9/06 have been fully considered but they are not persuasive. Bergeron discloses the limitations of the Independent Claim 1 including the L-shaped bill validator. Bergeron does not expressly disclose the wheel recesses to allow an optical detector to detect the rotation of a wheel, however, this is considered to

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be a well-known functional equivalent to an encoder wheel. Bergeron discloses an optical device that detects the rotation of a wheel (170). Watanabe discloses the bill non-return means as described in Applicant's claims. Since the motivation to combine both Bergeron and Watanabe is to prevent bills from being pulled out of the validator, as described in Watanabe, the rejection of Applicant's claims 1-4 and 6-11 is maintained.

### ***Conclusion***

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**8.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571)272-6911. The fax phone

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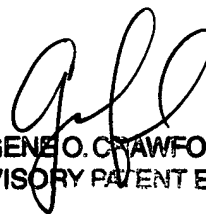
number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro  
Examiner  
Art Unit 3653

March 9, 2006



GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER